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FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. FILING DATE APPLICATION NO. 08/21/2003 Nick Sherstyuk PAT 655-2 US 6200 10/644,733 **EXAMINER** 35273 12/28/2005 BEVER, HOFFMAN & HARMS, LLP WHITMORE, STACY 1432 CONCANNON BLVD ART UNIT PAPER NUMBER

2825

DATE MAILED: 12/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/644,733	SHERSTYUK ET AL.
	Examiner	Art Unit
	Stacy A. Whitmore	2825
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply		
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).		
Status		
1) Responsive to communication(s) filed on 12 De	ecember 2005.	
	action is non-final.	•
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is		
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.		
Disposition of Claims		
4)⊠ Claim(s) <u>1-6 and 9-13</u> is/are pending in the application.		
4a) Of the above claim(s) is/are withdrawn from consideration.		
5) Claim(s) is/are allowed.		
6)⊠ Claim(s) <u>1-6 and 9-13</u> is/are rejected.		
7) Claim(s) is/are objected to.		
8) Claim(s) are subject to restriction and/or election requirement.		
Application Papers		
9)☐ The specification is objected to by the Examiner.		
10)⊠ The drawing(s) filed on <u>21 August 2003</u> is/are: a)⊠ accepted or b)□ objected to by the Examiner.		
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).		
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).		
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.		
Priority under 35 U.S.C. § 119		
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of:		
1. Certified copies of the priority documents have been received.		
2. Certified copies of the priority documents have been received in Application No		
3. Copies of the certified copies of the priority documents have been received in this National Stage		
application from the International Bureau (PCT Rule 17.2(a)).		
* See the attached detailed Office action for a list of the certified copies not received.		
Attachment(s)	-	
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)	4) 🔲 Interview Summary ( Paper No(s)/Mail Da	
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)	5) D Notice of Informal Pa	atent Application (PTO-152)
Paper No(s)/Mail Date 6)  Other:		

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## **DETAILED ACTION**

## Claim Rejections - 35 USC § 102

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 1. Claims 1-6, and 9-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Chatterjee (US Patent 6,625,785).
- 2. As for claims 1-6, and 9-13, Chatterjee discloses the invention as claimed, including a method, system, and software tool comprising instructions for interactively optimizing an engineering design, comprising assigning baseline design values to a set of design variables, conducting a sensitivity analysis to determine a set of performance factors, wherein the performance factors define an effect on a set of metrics for the engineering design of variations in a selected one of the set of design variables over a range of values while holding the set of design variables except for the selected one at the baseline set of design values, and manually changing one or more of the baseline set of design values based on the set of performance factors to generate an updated set of design values for the set of design variables [col. 1, lines 20-25; col. 2, lines 40-63; col. 3, lines 4-10, and 64-67; col. 4, lines 1, 8-11, 18-22, 58-67; col. 5, lines 48-65;

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col. 9, lines 55-65 – especially col. 9, lines 55-65 showing that the design values that only one value is computed for each parameter (design value) at a time, by keeping others constant].

Conducting a simulation of updated design values to determine an output set of values for the set of metrics, and determining whether updated set allows the design to satisfy performance values [col. 10-11, where the design values (device parameters) are simulated, the cause and effect analysis and col. 12, where design engineers can be given feedback to tune the process].

Manually changing the revised set of design values based on the set of effects if the output does not allow satisfied performance criterion to remain accurate [col. 10-11, where the design values (device parameters) are simulated, the cause and effect analysis and col. 12, where design engineers can be given feedback to tune the process – the designers tuning the process is manually changing the revised set of design parameters].

If the output values and performance factors are not accurate, then performing on the updated design, assigning baseline values, sensitivity analysis, manually changing one or more baseline values, performing simulation, and evaluating the output [col. 1, lines 20-25; col. 2, lines 40-63; col. 3, lines 4-10, and 64-67; col. 4, lines 1, 8-11, 18-22, 58-67; col. 5, lines 48-65; col. 9, lines 55-65 – especially col. 9, lines 55-65 showing that the design values that only one value is computed for each parameter (design value) at a time, by keeping others constant; col. 10-11, where the design values (device parameters) are simulated, the cause and effect analysis and col. 12, where design engineers can be given feedback to tune the process – the designers tuning the process is manually changing the revised set of design parameters; col. 10-11, where the design values (device parameters) are simulated, the cause and effect analysis and col. 12, where design engineers can be given feedback to tune the process – the designers tuning the process is manually changing the revised set of design parameters – The process is iterative and therefore reads on performing steps on the updated design].

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Wherein the sensitivity analysis comprises visually presenting the set of performance factors to the designer for review [col. 1, lines 20-25; col. 2, lines 40-63; col. 3, lines 4-10, and 64-67; col. 4, lines 1, 8-11, 18-22, 58-67; col. 5, lines 48-65; col. 9, lines 55-65 – especially col. 9, lines 55-65 showing that the design values that only one value is computed for each parameter (design value) at a time, by keeping others constant, col. 11, where the design engineers are provided feedback in order to tune the process must include a visual presentation in order for the engineers to be able to make changes].

Applying a structural change to the design [col. 11, tuning the device parameters effects a structural change in the design].

Wherein the sensitivity analysis involves a test one and the simulation on baseline values, generating test results, repeating the steps of selecting the test one, simulations, test results and compiling test results into the set of performance values is done [col. 1, lines 20-25; col. 2, lines 40-63; col. 3, lines 4-10, and 64-67; col. 4, lines 1, 8-11, 18-22, 58-67; col. 5, lines 48-65; col. 9, lines 55-65 – especially col. 9, lines 55-65 showing that the design values that only one value is computed for each parameter (design value) at a time, by keeping others constant, col. 11, where the design engineers are provided feedback in order to tune the process must include a visual presentation in order for the engineers to be able to make changes, col. 5, test stimulus and results are comprised within the sensitivity analysis].

3. Applicant's arguments filed December 12, 2005 have been fully considered but they are not persuasive.

In the remarks, applicant argues in substance that Chatterjee does not disclose performing a sensitivity analysis on variations in a selected design variable over a range of values, while holding the set of design variables except for the selected design variable at the baseline set of design values.

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Examiner disagrees for the following reasons:

Chatterjee does disclose performing a sensitivity analysis on variations in a selected design variable over a range of values, while holding the set of design variables except for the selected design variable at the baseline set of design values [see as cited above in the rejection of claim 1, and further col. 9, lines 59-62 where one parameter from each ambiguity group (a set of design variable are contained in the plural (each) design variables are held constant while a variable is swept or computed for a selected parameter.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stacy A. Whitmore whose telephone number is (571) 272-1685. The examiner can normally be reached on Monday-Thursday, alternate Friday 6:30am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Chiang can be reached on (571) 272-7483. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Stacy A Whitmore Primary Examiner

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SAW

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December 22, 2005

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